Group #3

Design Recommendations

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- Levee Types & Heights
  - Should be area dependent
    - Can use lower heights if they are not protecting sensitive urban areas, etc.
    - Allow overtopping where adequate storage is available
    - Provide scour protection where overtopping is expected
    - Add outlet structures to drain storage areas

Group # 3 Recommendations

- Levee Construction
  - Conventional methods should not be used for excessive levee heights on poor foundations
  - Need reduced cross sections and footprints
  - Need soil improvement for many areas

Group # 3 Recommendations

- Levee Design
  - Current methodology is based on 1950's approach for Miss. River Levees
    - This approach may be slightly conservative for hurricane protection levees
    - Methodology should be reviewed and revised to allow for differences in foundation conditions
    - Construct test sections
  - Optimize designs for cost and constructability for each reach

Group # 3 Recommendations

- Benefits of Ground Improvement
  - Potentially lower costs
  - Lower O&M costs (less settlement)
  - Room for error – only need 30 – 40 psi
  - Allows for single stage construction

Group # 3 Recommendations

- Other Concepts
  - Incorporate buildings into flood protection
    - Bottom floors/wall used for protection
    - Use in industrial areas near waterways
  - Deep soil mixing – are there enough Contractors and equipment?
  - Don’t depend on devices that can easily be vandalized
  - Cellular Structures – possibly in combination with soil mixing
  - Spillway structures / Water management – divert water from one basin into another

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Questions or Comments